



LABOR SUPPLY & DEMAND

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There are always jobs that need filled, and people who need jobs. However, the skills needed for open jobs do not always match the type of work job seekers are seeking.

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Labor Supply and Demand

There are always jobs that need to be filled, and people who need jobs. However, the skills needed for open jobs do not always match the type of work job seekers are seeking. Analyzing those gaps can provide perspective on areas of opportunity for those interested in entering or changing career fields, as well as support policymakers in understanding possible future need.

This analysis takes job seeker information from new job seeker registrations in Missouri's job seeker support system, MoJobs, from May 1, 2020 – May 1, 2021, and compares it to employer job ads during the same time period. Job seeker registrations represent an available supply of workers who are currently seeking work. Online job postings represent the demand for labor in different occupations. A comparison of these two datasets provides an indication of occupational groups for which labor supply is sufficient or larger to meet employer's current needs, and occupation groups where there is a shortage of trained workers available to meet employer's current demands. Research shows that, with training, employment opportunities

exist that can bridge the gaps between labor supply and demand. Looking at where gaps occur can help guide workers to training for in-demand jobs.

From May 1, 2020 – May 1, 2021, there were nearly 200,000 new job seeker registrations in Missouri's workforce data system, where job seekers are assigned to an occupation group based on the type of employment they are seeking. At the same time, employers posted over 600,000 online job ads according to data from Burning Glass Technologies. While no dataset can fully capture both markets, it does offer information about the relative gaps present in different job areas. In particular, Burning Glass can only capture job ads posted online. Jobs in industries such as construction and maintenance are often hired through word of mouth instead of formal job ads placed in the newspaper or on websites, and therefore can be underrepresented. However, these two datasets still show that certain occupations are in high demand, with fewer people seeking them, whereas other jobs have a large supply of potential workers but less job postings.

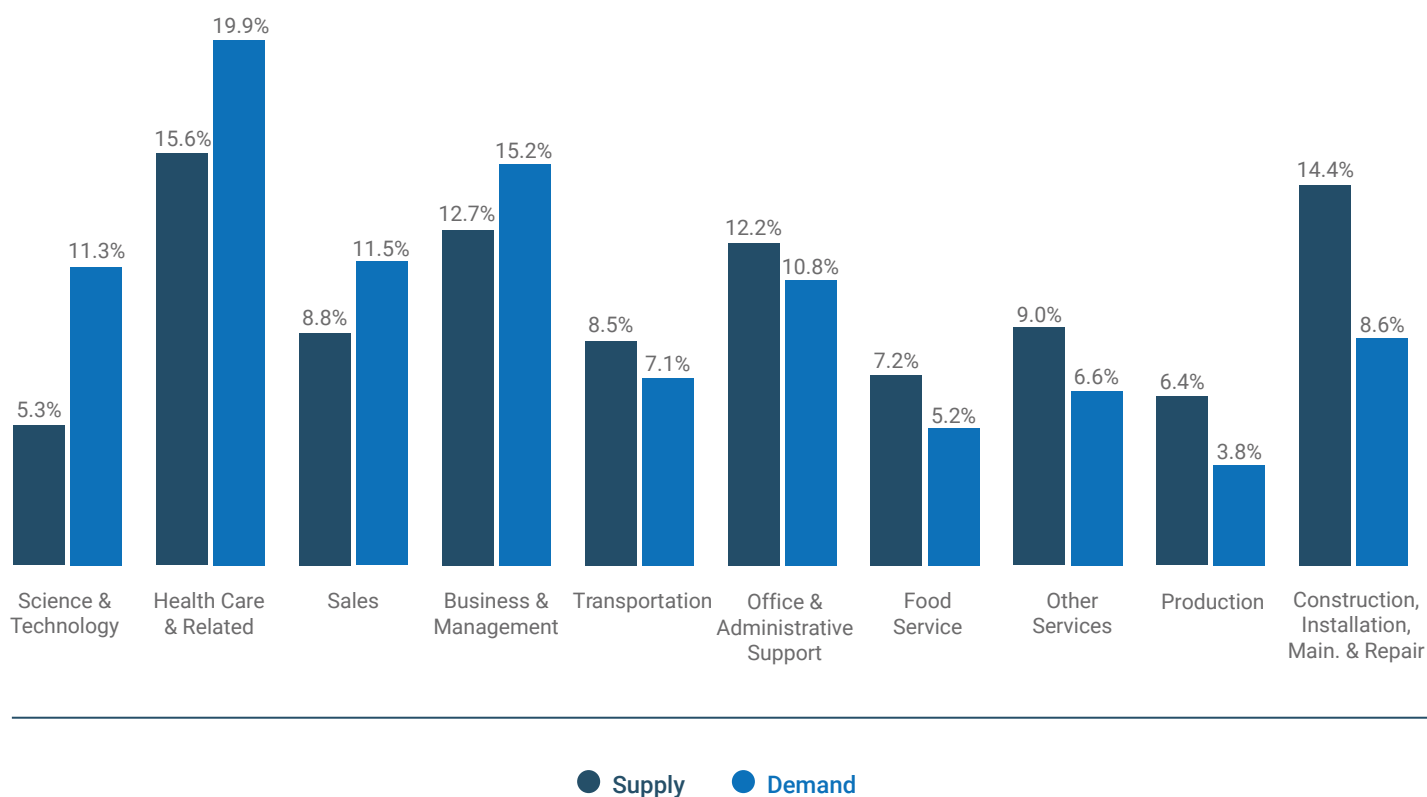
Research shows that, with training, employment opportunities exist that can bridge the gaps between labor supply and demand.

Labor Supply and Demand

The numbers in the chart below represent the share of job seekers interested in each job field compared to total job seekers, and the share of job ads in each job field compared to total job ads. If there were not gaps or overages, the percentages should be close to equal. Instances in which the supply share is smaller than the demand share indicates a possible shortage in workers for those occupational groupings. Conversely, when the supply share exceeds the demand share, there may be a larger share of potential workers in the field than employers require.

Reading from left to right, the chart below shows that jobs in *Science & Technology* and *Health Care* are in high demand, however, a smaller portion of job seekers are pursuing those opportunities. These combined areas account for 31 percent of the job ads yet only 21 percent of job seekers indicate looking for work in these occupations. On the other end of the spectrum, nearly 30 percent of job seekers are looking for work in *Construction, Installation, Maintenance & Repair (CIMR)*; *Production*; and *Other Services*, but only 19 percent of postings are in these fields.

Supply and Demand Job Fields by Percent



Total Employment and Wages

Occupations in Missouri that had the highest average annual wage in 2020 were *Business & Management* (\$90,633), and *Science & Technology* (\$80,962), both of which also had supply gaps. High wages along with a gap in these fields could be an incentive for job seekers to seek training for these occupations. *Health Care & Related* occupations, another group with a large supply gap, had the highest total employment at 423,030 jobs, followed by *Office and Administrative Support* (386,250).

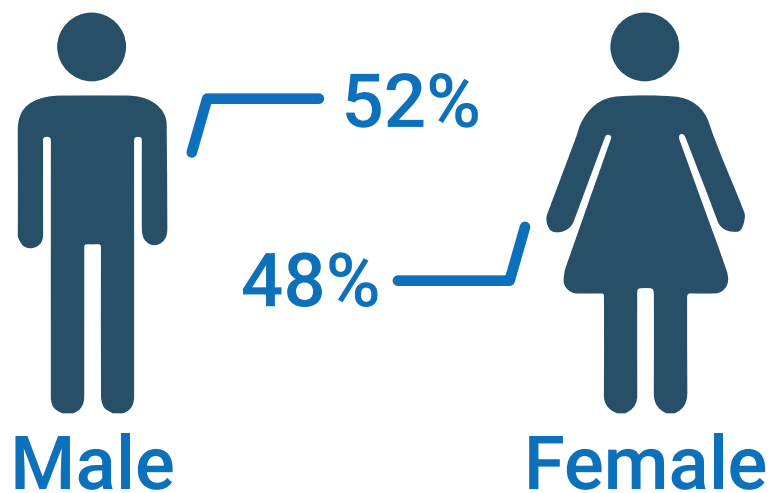
JOB FIELDS	TOTAL EMPLOYMENT	AVERAGE ANNUAL WAGE
Business & Management	288,780	\$90,633
Science & Technology	140,920	\$80,692
Other Services	259,490	\$52,451
Health Care & Related	423,030	\$50,566
Construction, Installation, Maintenance & Repair	295,340	\$47,501
Sales	254,580	\$42,480
Production	190,300	\$41,120
Office and Administrative Support	386,250	\$39,790
Transportation	225,370	\$37,590
Food Service	227,570	\$25,800
Total	2,691,630	\$50,140

Source: U.S. Bureau of Labor Statistics, 2020 Occupational Employment & Wage Statistics

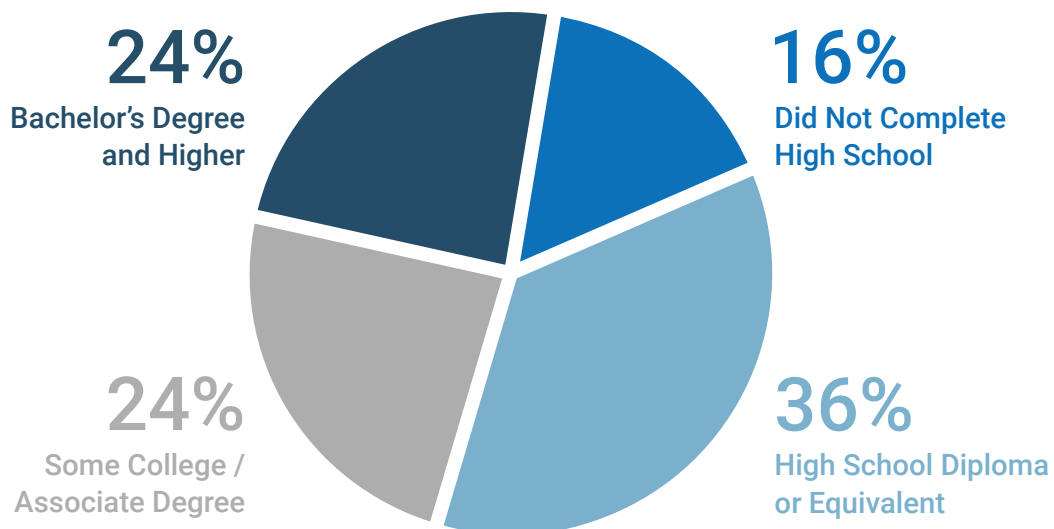
Supply Demographics

Out of the active job seekers in Missouri's workforce data system, 52 percent were male and 48 percent were female. Over one-half of the job seekers had a high school diploma or lower (52%) and nearly one-fourth (24%) had some college but less than a bachelor's degree.

Gender of Job Seekers

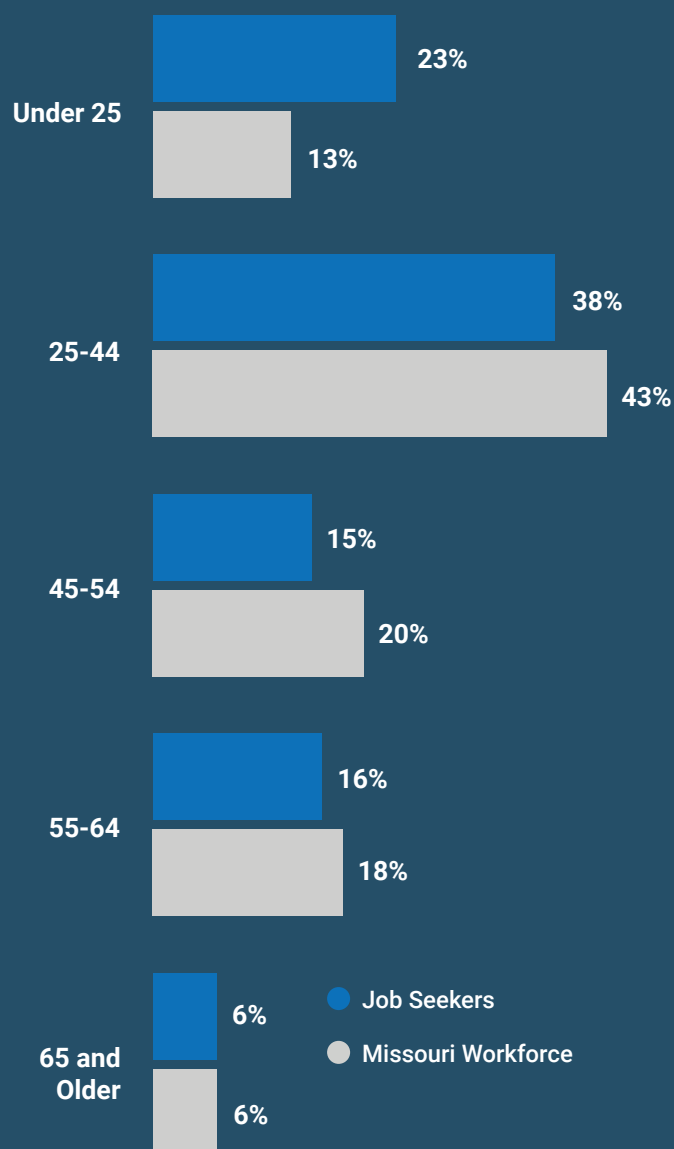


Educational Attainment of Job Seekers





Age of Job Seekers and Missouri Workforce



Nearly one-fourth of job seekers (23%) were under the age of 25, compared to only 13 percent of Missouri's workforce. The ratio of 65+ workers was the same between job seekers and Missouri's workforce.

Sources: QWI Explorer application, U.S. Census Bureau, Missouri Job seeker database

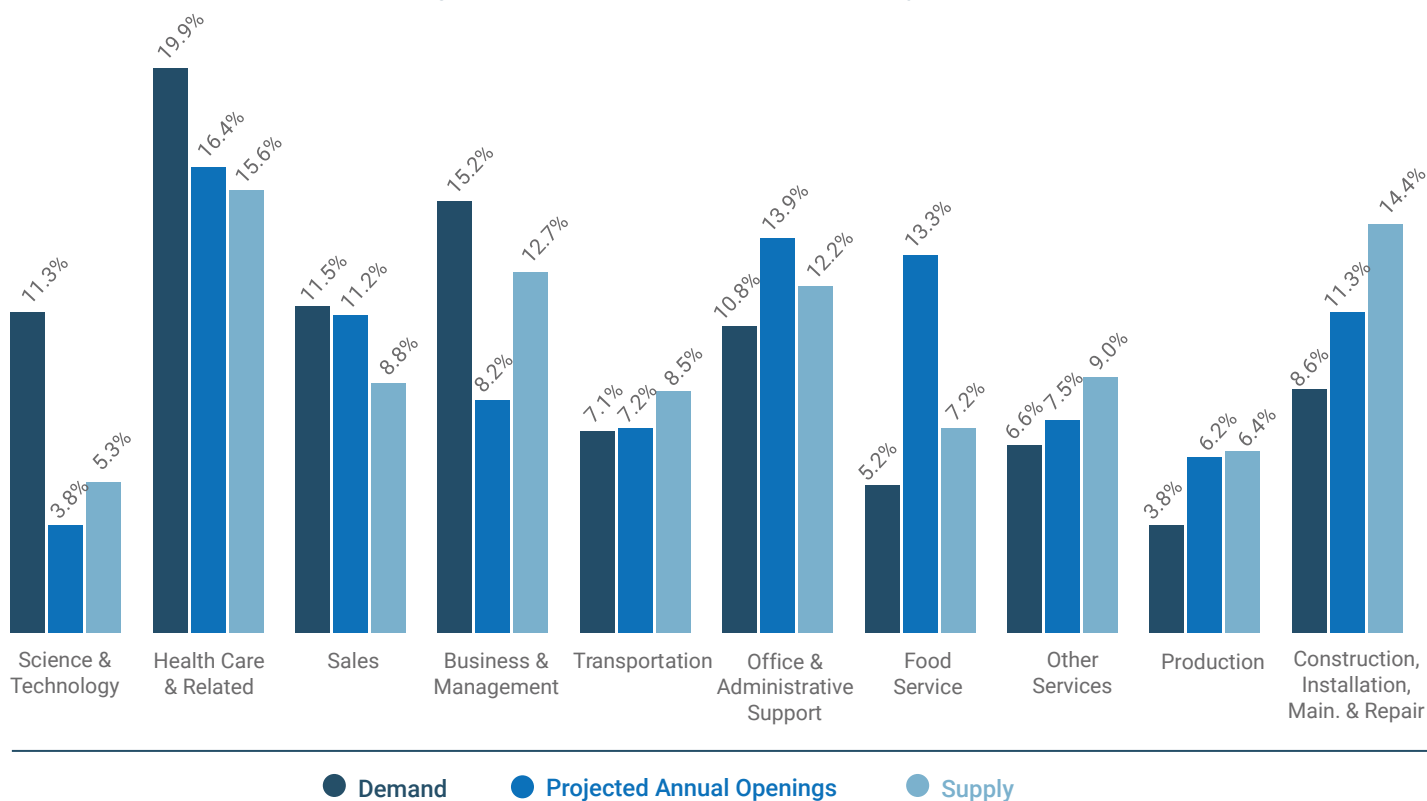
Projected Demand

As Burning Glass can only capture job ads posted online, it can also be useful to look at occupational employment projections for a more complete look at the demand of occupation groups. Long-term employment projections measure the projected demand of occupations over a 10-year period. Total openings comprise growth openings, exit openings, and transfer openings. Growth openings are the result of an occupation growing between the base year and the projected year. Exit openings occur when a worker leaves the workforce entirely, such as retirement. Transfer openings occur when a worker leaves their occupation for a different one. The majority of the openings will occur through transfers and exits (96%) while only four percent will come from new job growth. Ten-year projections are estimated every two years for the over 800 occupations in the Bureau of Labor Statistics Standard Occupational Classification system.

Looking at the chart below, 16.4 percent of projected annual openings over the 10-year period come from jobs in *Health Care & Related*, which also had a large supply gap. This indicates there is both an immediate and longer-term need for workers in these occupations. Although *Science & Technology* only made up 3.8 percent of projected total openings, this occupation group is projected to grow 10.5 percent from 2018-2028, adding more than 15,000 new jobs. With only 5.3 percent of job seekers looking for work in these occupations, combined with a large current demand and strong projected growth, there are job opportunities in technology for workers wanting to expand their skill set. In addition, as technology changes, additional skills and training may be needed to be successful in these occupations.

Construction, Installation, Maintenance & Repair, the job field with the largest oversupply, is projected to comprise 11.3 percent of total job openings from 2018-2028. Although current demand is low, perhaps somewhat because of the online bias of the types of job ads that are typically posted online, these occupations show greater demand long-term. One way to connect to opportunities in this field is through apprenticeship programs, which allow job seekers to both train and work in the field at the same time.

Projected Demand Job Fields by Percent





Career Opportunities

Top Occupations

Online Job Ads	Occupation
13,130	Software Developers, Applications
12,900	Computer Occupations, All Other
4,490	Computer User Support Specialists
3,170	Computer Systems Analysts
2,360	Information Security Analysts
2,090	Web Developers
1,970	Database Administrators
1,830	Operations Research Analysts
1,630	Engineers, All Other
1,600	Network & Computer Systems Administrators

Source: Burning Glass Technologies, Online job ads May. 1, 2020 - Apr. 30, 2021

Science and Technology

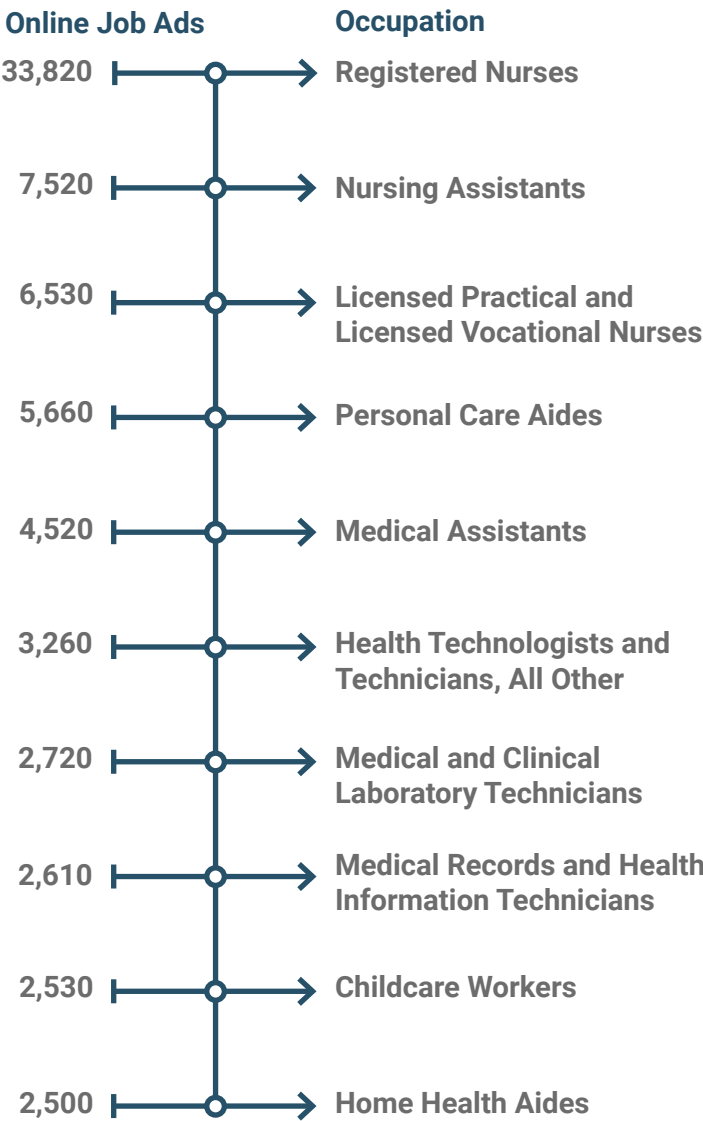
Science & Technology occupations are in high demand, with fewer job seekers pursuing them. Occupations in *Science & Technology* have a large array of information technology (IT) and engineering opportunities, most of which require a degree or specialized training and skills. Some employers will hire an entry-level technology job applicant if the person has proven skills, such as industry-recognized certifications, but no college degree. Visit [MoSCORES](#) to learn more about training opportunities and outcomes for degrees and certificates at higher education institutions and other training providers across the state. *Science & Technology* occupations with the most job ads were *Software Developers, Applications* and *Computer Occupations, All Other*, which includes jobs such as *Computer Systems Engineers/Architects*, *Information Technology Project Managers*, and *Business Intelligence Analysts*.

Visit [MoSCORES](#) to learn more about training opportunities and outcomes for degrees and certificates at higher education institutions and other training providers across the state.



Career Opportunities

Top Occupations



Health Care and Related

Health Care and Related occupations are also in high demand, with fewer job seekers pursuing them. *Health Care & Related* occupations range from health care professions to personal care jobs. Entry-level occupations can be pursued with no prior experience or higher education, and others need further training and education. Reports on career pathways in *Health Care* as well as other industries can be found [here](#). *Health Care and Related* occupations with the most online job ads were *Registered Nurses*, *Nursing Assistants*, and *Licensed Practical and Vocational Nurses*.

Entry-level occupations can be pursued with no prior experience or higher education, and others need further training and education.

Source: Burning Glass Technologies, Online job ads May. 1, 2020 - Apr. 30, 2021

Methodology

Occupations with similar attributes were grouped into 10 job fields based on SOC major occupation groups, *Business & Management*; *Construction, Installation, Maintenance & Repair*; *Food Service*; *Health Care & Related*; *Production*; *Sales*; *Science & Technology*; *Transportation & Material Moving*; *Office & Administrative Support*; and *Other Services*. Occupational families not similar to the first nine groups were grouped into *Other Services*. The chart below defines the occupations and corresponding job fields.

JOB FIELDS	JOB FAMILY	SOC CODE
Business & Management	Management	11-0000
	Business and Financial Operation	13-0000
Construction, Installation, Maintenance & Repair	Building & Grounds Cleaning & Maintenance	37-0000
	Construction & Extraction	47-0000
	Installation, Maintenance, & Repair	49-0000
Food Service	Food Preparation & Serving	35-0000
Health Care & Related	Community & Social Service	21-0000
	Health Care Practitioners & Technical	29-0000
	Health Care Support	31-0000
	Personal Care & Service	39-0000
Production	Production	51-0000
Sales	Sales and Related	41-0000
Science and Technology	Computer & Mathematical	15-0000
	Architecture & Engineering	17-0000
	Life, Physical & Social Sciences	19-0000
Transportation and Material Moving	Transportation & Material Moving	53-0000
Office and Administrative Support	Office and Administrative Support	43-0000
Other Services	Legal	23-0000
	Education, Training, & Library	25-0000
	Arts, Design, Entertainment, Sports, & Media	27-0000
	Protective Service	33-0000
	Farming, Fishery, & Forestry	45-0000

Notes

Supply and Demand data can be obtained from several different sources. After analyzing data from the Bureau of Labor Statistics, online job ads, and job seeker data over various time periods, MERIC concluded one year of job seeker and job posting data provided the best analysis, and reduced the seasonality bias of employment trends.

However, as noted, some occupations may be less likely to be represented in online job ads and some job seekers may be more likely than others to utilize the job seeker services system.

In addition, recent enrollment or completion of education and training programs may impact the supply of possible job seekers that is not represented in this report.

Finally, the COVID-19 global pandemic impacted both the supply and demand environments during this study's reference period. Future reports may help to identify COVID-specific influences on the data results.

Sources

Burning Glass Technologies, Labor/Insight

MoJobs job seeker database

QWI Explorer application, U.S. Census Bureau

U.S. Bureau of Labor Statistics, 2020 Occupational Employment & Wage Statistics

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